

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and the reasons that follow.

Claims 2 and 12 are currently being amended. Support for this amendment can be found at least in the present specification on page 3, lines 1-11.

This amendment changes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-12 are now pending in this application.

Allowable subject matter

Applicants appreciate the indication that claims 1 and 7-11 are allowed.

Rejections under 35 U.S.C. §§ 102 and 103

Claims 2-6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,776,417 to Frost et al. (hereafter “Frost”). Claim 12 stands rejected under 35 U.S.C. § 103 as being unpatentable over Frost in view of U.S. Patent No. 6,029,441 to Mizuno et al. (hereafter “Mizuno”). Applicants respectfully traverse these rejections for at least the following reasons.

Claim 2 recites “a CO oxidation catalyst and a H₂O trap are coated on a support, so dimensioned that adsorption heat and condensation heat of H₂O contribute to a rise in temperature of the CO oxidation catalyst.” Frost is silent regarding an arrangement of a CO oxidation catalyst and a H₂O trap such that that adsorption heat and condensation heat of H₂O contribute to a rise in temperature of the CO oxidation catalyst, or the advantages of such an arrangement.

Moreover, Frost fails to realize the benefits of the arrangement of a CO oxidation catalyst and a H₂O trap as recited in claim 2, where the adsorption heat and condensation heat of H₂O contribute to a rise in temperature of the CO oxidation catalyst. The arrangement of

the H₂O trap and the CO oxidation catalyst as recited in claim 2 provides a relatively immediate rise in temperature of the CO oxidation catalyst just after an engine start, which leads to a quick light-off of the CO oxidation catalyst. Frost, failing to suggest the arrangement of a CO oxidation catalyst and a H₂O trap as recited in claim 2, also fails to realize the benefits resulting therefrom.

Moreover, the arrangement as recited in claim 2 is based on the discovery by the inventors that the adsorption heat and the condensation heat of H₂O can be used as a heat source. Such an arrangement was not appreciated by Frost or other prior art. Thus, one skilled in the art would not have been lead to modify the Frost system to arrive at the system recited in claim 2.

Mizuno was cited for allegedly disclosing an HC trap upstream of a secondary air supply unit, and does not cure the deficiencies of Frost.

Independent claim 12 recites “a low temperature light-off CO oxidation catalyst and a H₂O trap are coated on a support, so dimensioned that adsorption heat and condensation heat of H₂O contribute to a rise in temperature of the low temperature light-off CO oxidation catalyst.” Thus, claim 12 is patentable over Frost for reasons analogous to claim 2.

Dependent claims 3-6 ultimately depend from claim 2 and are patentable for at least the same reasons, as well as for further patentable features recited therein.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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